

September 17, 1997

The Honorable Federico Peña  
Secretary of Energy  
1000 Independence Avenue, SW  
Washington, DC 20585-1000

Dear Secretary Peña:

This letter forwards a summary report by the Defense Nuclear Facilities Safety Board's (Board) site representatives on the Department of Energy's (DOE) Facility Representative Program. The program was strengthened in response to Board Recommendation 92-2, *DOE's Facility Representative Program at Defense Nuclear Facilities*. This has been one of the most successful recommendations implemented by DOE. Among the reasons for its success are the personal and persistent role played in its implementation by the Associate Deputy Secretary for Field Management, and commitment to the program on the part of the Field Operation Managers.

The Board believes the Facility Representatives to be among the most effective safety management employees within DOE. Most of these highly trained DOE employees were added to DOE's rosters in recent years through special hiring programs that the Board supported. They were made to qualify to high standards made requisite for their assignments. The technical competence of the new Facility Representatives has been of great importance in DOE's management of safety programs at defense nuclear facilities. This emphasizes the importance of ensuring that DOE does not reduce the number of technically qualified Facility Representatives during the forthcoming downsizing.

The Board also notes that some sites have recognized the growth potential of their Facility Representatives, and have assigned these individuals additional responsibilities commensurate with their education, training, and capabilities. We would note further that this increase in technical competence could be at risk if not considered in any proposed reduction-in-force process. The enclosed report provides examples of contributions that the DOE Facility Representatives have made to strengthen safety as well as program management in the field.

Sincerely,

John T. Conway  
Chairman

c: The Honorable Alvin L. Alm  
The Honorable Victor H. Reis  
Mr. Mark B. Whitaker, Jr.

Enclosure

# DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 10, 1997

**MEMORANDUM FOR:** G. W. Cunningham, Technical Director

**COPIES:** Board Members

**FROM:** P. F. Gubanc

**SUBJECT:** Quality, Importance, and Value of DOE Facility Representatives

In May 1992, the Defense Nuclear Facilities Safety Board (Board) issued Recommendation 92-2, which addresses the Department of Energy's (DOE) Facility Representative Program. During the next 4 years, DOE invested significant resources to develop and implement a Facility Representative Program at its Operations and Area Offices. As a result of DOE's successful implementation of a Facility Representative Program, the Board closed Recommendation 92-2 in October 1996.

This report documents observations of the Board's staff relative to the quality, importance, and value to the safety of defense nuclear facilities of DOE Operations and Area Office Facility Representatives. These observations were made by staff members P. F. Gubanc, J. DeLoach, T. Dwyer, K. Fortenberry, and R. Warther.

To summarize the staff's observations, DOE Facility Representatives are some of the most highly trained and capable DOE staff in the defense nuclear complex. Despite their small numbers (5-10 percent of field manning), the Facility Representatives are making substantial contributions to safety and efficiency at defense nuclear facilities. Their effectiveness is achieved by extensively observing work in their assigned facilities, often working long and unusual hours and in physically uncomfortable conditions. The Board's staff believes that the DOE Facility Representatives are significant contributors to the defense-in-depth at defense nuclear facilities and warrant ardent support from DOE management.

**Facility Representative Effectiveness.** The following examples illustrate the effectiveness and value of the DOE Facility Representatives:

- DOE-Richland (DOE-RL) Facility Representatives have identified numerous shortcomings in safety basis controls for Hanford's nuclear facilities. As a result, analyses have been repeated and controls implemented to ensure public and worker safety.
- DOE-Rocky Flats Field Office Facility Representatives routinely assist DOE Headquarters and Field Office personnel in assessing readiness to proceed with risk-reduction activities. This involvement has led to the identification and correction of safety issues not noted by contractor personnel during preparations for these activities.
- DOE-Savannah River (DOE-SR) and DOE-Oak Ridge Y-12 Facility Representatives have increased DOE management's awareness of facility operations and future needs

related to safe operation, as well as challenged contractor management on technical issues. The Facility Representatives are in large part responsible for improvements in the performance of Operational Readiness Reviews and in operational safety.

- DOE-Amarillo Area Office Facility Representatives are required to verify the completion of lightning protection upgrades to the Pantex Zone 12 facilities prior to restart.
- DOE Facility Representatives at the Nevada Test Site and the Oak Ridge Y-12 Plant responded deftly to simulated casualty conditions and handled recovery actions with accomplished authority during their respective sites' 1997 emergency preparedness drills.

Because of the demonstrated value and success of the Facility Representatives, DOE Operations and Area Offices continue to invest heavily in the Facility Representative Program. The value of Facility Representative observations, however, is sometimes not recognized by management. For example, the May 1997 explosion at Hanford's Plutonium Reclamation Facility was preceded by several years of observations by DOE-RL Facility Representatives regarding the poor discipline of contractor operations and the hazards associated with chemicals in inactive systems.

**Facility Representative Program Development.** Significant up-front work was required to establish sound underpinnings for DOE's Facility Representative Program. In response to Recommendation 92-2, DOE developed DOE-STD-1063-93, *Establishing and Maintaining a Facility Representative Program at DOE Nuclear Facilities*, dated August 1993. This standard borrows heavily from similar successful programs operated by the Naval Nuclear Program and the Nuclear Regulatory Commission (NRC). During the next 3 years, substantial effort was invested in assessing and upgrading DOE Operations and Area Office programs across the complex.

**Facility Representative Selection and Qualification.** To achieve the above successes, careful selection and preparation of Facility Representatives is required. In accordance with DOE-STD-1063-93, DOE Facility Representative candidates are selected for their high academic achievement, ability to identify problems, and relevant prior work experience. DOE Facility Representatives typically enter the program with 5–15 years of experience with either the nuclear Navy, commercial nuclear utilities, or the NRC. Once selected, they enter a DOE training and qualification pipeline of 6–18 months' duration, during which time they receive extensive classroom and facility-specific training. At the conclusion of this training, they must pass a comprehensive written and oral examination.

**Facility Representative Capacity for Growth.** Facility Representatives have been recognized by senior DOE managers not only for their extensive systems knowledge and field skills, but also for their managerial potential. Personnel with Facility Representative experience are often sought for demanding DOE management positions involving operations and safety. For example, a former DOE-SR Facility Representative is the DOE Amarillo Area Office Assistant Manager for Nuclear Materials Operations; a former DOE Los Alamos Area Office Facility Representative is now their Senior Technical Advisor; and a former DOE-RL Facility Representative is now the Director of Quality, Safety, and Health.